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Notatki homopterologiczne X—XII [1]

Гомоптерологические заметки X—XII [1]

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[With 24 text-figures]

X

Redescription of *Chloriona stenoptera* (FLOR) (*Delphacidae*)

When determining a fairly rich material of *Homoptera* collected in the Białowieża National Park (eastern Poland) I found one male specimen belonging to the genus *Chloriona* FIEB., which seemed to represent a new species. It was collected in a swampy forest (experimental field No. VIII, Pinetum turfosum, on 9 June, 1949, leg. J. J. KARPIŃSKI). For want of further specimens it remained undetermined. On 21 July, 1955, I visited together with Mr. S. NOWAKOWSKI the same place. It is a very swampy, not very dense forest

[1] Cf.: Ann. Mus. Zool. Pol., Warszawa, **11**, 1936, pp. 335—338; **13**, 1938, pp. 161—166; **14**, 1951, pp. 193—198.

with *Pinus silvestris* L., *Picea excelsa* L. and *Betula pubescens* Ehrh.; the ground is covered, among others, with *Sphagnum* sp. and *Phragmites communis* Trin., the last plant relatively low, weakly developed and loosely scattered. Nineteen specimens of *Chloriona* Fieb. were taken there by sweeping (4 males and 15 females). They proved to belong, as far as males are concerned, to the same species as that taken before. The male genitalia are somewhat similar to those of *Chloriona chinai* Oss., although they differ from those of all the species investigated recently.

Externally, the species of the genus *Chloriona* Fieb. are very similar to each other and they can be distinguished only on the basis of the male genitalia. Unfortunately, some of the previously described species are very difficult to interpret correctly because of poor descriptions and inaccurate figures given by their authors. To such enigmatical species belongs *Chloriona stenoptera* (Flor). It was described by Flor in 1861 under the name *Delphax stenoptera* on the basis of a single male specimen from Livonia (Lake Kulding). The type or another specimen served Fieber to publish in 1866 a figure and give a short description; a more detailed description by Fieber appeared in 1878. The figure of the male genitalia given by Fieber is not sufficient but one detail has attracted my attention: it is the shape of the processes of the anal tube. In the male specimens from the Białowieża National Park the anal tube is provided with such peculiar processes not observed in other species of the genus *Chloriona* Fieb. Other peculiarities, such as the shape of the genital segment, especially its lateral outline, as well as the place of occurrence in the east of Poland convinced me that the specimens at hand are conspecific with *Chloriona stenoptera* (Flor) as illustrated by Fieber. In the following I give a redescription of this species with special reference to its male genitalia.

Males (macropterous). Total length 4.9—5.0 mm. Head and thorax greenish-gray, head with some brownish suffusions, postclypeus somewhat yellowish, eyes dark brown; antennae and legs gray; forewings smoky, hind wings nearly vitreous; abdomen black, posterior margins of segments pale yellow, especially on the ventral side, pygofer black. Genitalia as

figured [fig. 2—8]. Parameres somewhat similar to those in *Chloriona chinai* Oss. but straight and with the tip nearly symmetrical; the armature of the anal tube is a very characteristic feature which distinguishes *Ch. stenoptera* Flor from the other species of the genus (for comparison see pl. VIII, fig. 6 d in Fieber's paper, 1866).

Females (brachypterous). Length of body 4.5—4.9 mm. Whole body vivid green; postclypeus, antennae, legs and

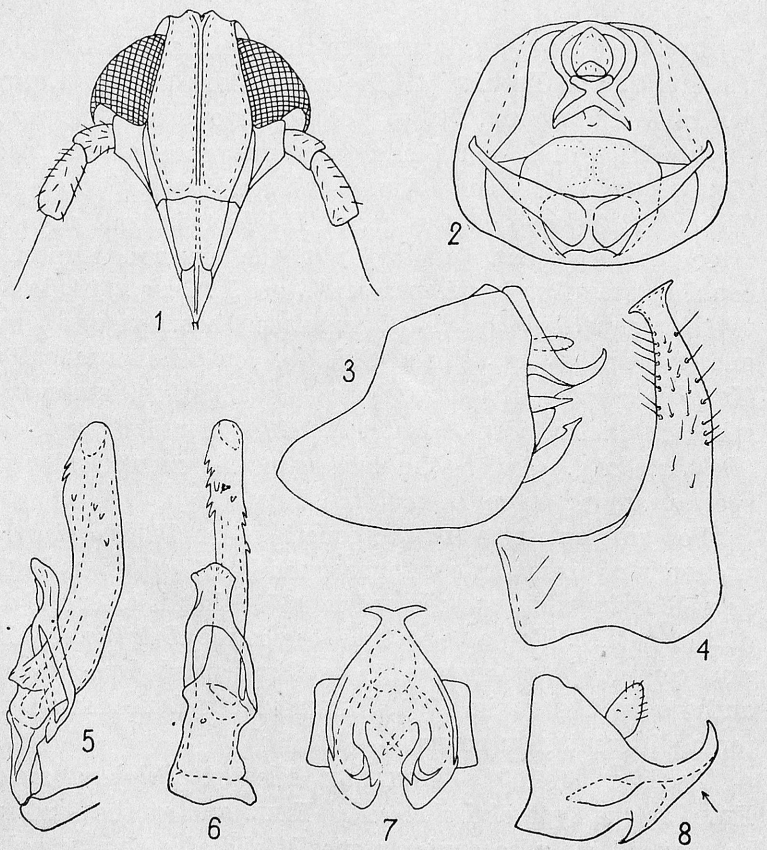


Fig. 1—8. *Chloriona stenoptera* (Flor), ♂
1 — head in frontal view; 2 — pygofer from behind, × 65; 3 — pygofer from the left side, × 65; 4 — left paramere, × 150; 5 — aedeagus from the left side, × 100; 6 — aedeagus from above, × 100; 7 — anal segment from below, × 100; 8 — anal segment from the left side, × 100.

posterior margins of abdominal segments, somewhat paler, yellowish. Forewings vitreous, short, somewhat longer than broad. Hind wings absent.

XI

Notes on the genera *Megamelus* Fieb. and *Delphacodes* Fieb. (*Delphacidae*)

In a special paper devoted to the generic classification of the *Delphacini* Fieber (1866) gave a key to the European genera of this group. On p. 519 he introduced a new genus, *Megamelus* Fieb., containing only one species, *M. notulus* (Germ.), which became thus the haplotype of the genus. On p. 520 he quoted the genus *Delphax*; he put no author after the name but, judging from the mentioned species, it could be only *Delphax* Latr., auct., nec F. On p. 524, in a key to the genus *Delphax* he distinguished between two groups: one of them having „Stirnkiel bis auf den Scheitel fadenförmig (*Delphax*)" and the second having „Stirnkiel stumpf oder geschärft bis auf den Scheitel laufend, oder dort verlöschend (*Delphacodes*)". Under the last name he mentioned several species, among them *D. mulsanti* Fieb.

For unknown reasons, the generic name *Delphacodes* Fieb. was omitted from the catalogue published by Fieber in 1872, as well as from his work issued in 1879, that is after the death of the author. For a long time the name *Delphacodes* Fieb. was completely unknown to, or disregarded by subsequent authors, and even in 1901, Melichar used the same name for a different new genus.

As late as 1904, Kirkaldy selected *Delphax mulsanti* Fieb. as the type of *Delphacodes* Fieb. and at the same time he changed the preoccupied name *Delphacodes* Mel., nec Fieb. into *Pseudaraeopus* Kirk. It is not to be wondered that the selection of the generic type for the genus *Delphacodes* Fieb., put in an inconspicuous foot-note in Kirkaldy's paper dealing with some Hawaiian species, could escape notice of specialists. In consequence, *D. mulsanti* Fieb. has been catalogued by

Oshanin (1906, 1912) under the generic name *Delphax* Latr., auct., nec F.

It seems to be very probable that the type selected by Kirkaldy was only a formal one, and that he did not know the type species. Besides, commencing with the year 1907 he used to regard several undoubtedly distinct genera as synonymous with the genus *Delphacodes* Fieb. (*Delphax* Latr., auct., nec F., *Chlorionidea* Loew, *Delphacinus* Fieb., *Kelisia* Fieb., *Chloriona* Fieb.). And although most of these synonyms have not been accepted by subsequent authors, Kirkaldy was followed by Muir and others in regarding the genera *Delphax* Latr., auct., nec F. (*Liburnia* auct., nec Stål) and *Delphacodes* Fieb. as identical ones. In the „General Catalogue of the *Hemiptera*" (1943) the generic name *Delphacodes* Fieb. was used in the same sense.

In 1935, Haupt referred *Delphacodes mulsanti* Fieb. to the genus *Megamelus* Fieb. He was followed in that by Dlabola (1954). As a matter of fact, *Delphacodes mulsanti* Fieb. may be considered as nearly related to *Megamelus venosus* (Germ.) and *Megamelus paludicola* Lindb. [1] But all the three species cannot be treated as congeneric with *Megamelus notulus* (Germ.), the type of the genus *Megamelus* Fieb. They constitute a separate genus, *Delphacodes* Fieb. with *Delphacodes mulsanti* Fieb. as the type species.

During my visit to Albania, in 1952, I collected several macropterous specimens of *Delphacodes mulsanti* Fieb. They were taken at Tirana: June 4, 4 males, 1 female, at light; June 8, 2 males. Another two macropterous specimens come from Bulgaria: Dikilitaš near Varna, October 12, 1954, 2 males,

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[1] I accept here the name *M. paludicola* Lindb. (syn.: *M. brevifrons* Hpt., nec Reut.) instead of *M. pilosus* Hpt. as suggested by Ossiannilsson (1946, 1948). There are some doubts as to the specific identity of *M. brevifrons* Hpt., nec Reut. and *M. brevifrons* var. *pilosus* Hpt. Lindberg's name determines the species more exactly and has but one meaning.

[2] When this note was under press I received a paper by Dlabola (Acta Ent. Mus. Nat. Pragae, Praha, 31, 1957, pp. 19—68) in which the author came to similar conclusions.

leg. R. Bielawski. Some details concerning the structure of the male genitalia are given on figs. 9—14.

At least the following three European species belong to the genus *Delphacodes* Fieb.:

Delphacodes mulsanti Fieb. known to occur in southern France, Sardinia, Albania, Bulgaria and Czechoslovakia,

Delphacodes venosus (Germ.) distributed all over Europe, and

Delphacodes paludicola (Lindb.) known from northern Germany, England, Sweden and Poland

All the three above species resemble very much each other. The data concerning their distribution should be revised on the basis of an examination of the male genitalia.

The genus *Delphacodes* Fieb. in the above interpretation is distinct from, though very nearly related to *Megamelus*

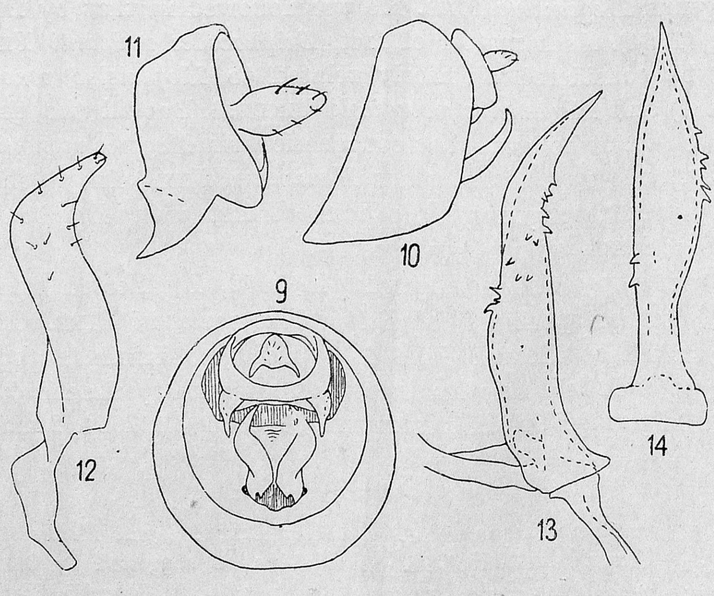


Fig. 9—14. *Delphacodes mulsanti* Fieb., ♂.
9 — pygofer from behind, × 100; 10 — pygofer from the left side, × 100; 11 — anal segment from the left side, × 200; 12 — left paramere, × 260; 13 — aedeagus from the left side, × 260; 14 — aedeagus from above, × 260.

Fieb. The head in *Megamelus* Fieb. is strongly produced in front of the eyes, frons narrow and long, side keels of pronotum less divergent posteriorly; male pygofer with a peculiar duplicature of its walls, forming two blister-like lobes; aedeagus very long, extremely thin, usually protruding from the pygofer. The genus *Megamelus* Fieb. is represented in Europe by a few species; numerous species have been recorded from North America (Beamer, 1955).

The above can be summarized as follows:

1. *Delphacodes* Fieb., logotype: *Delphax mulsanti* Fieb. is a distinct genus and can be by no means synonymised with *Megamelus* Fieb.

2. The name *Delphacodes* Fieb. cannot serve as a substitute name for *Delphax* Latr., auct., nec F. nor for *Liburnia* auct., nec Stål.

The really difficult question of a suitable name or names for *Delphax* auct., nec F. and *Liburnia* auct., nec Stål is not the object of the present note. It would require a careful revision of more than 300 species distributed all over the whole world. As a partial solution it remains to adopt for them, at least temporarily, the old name *Calligypona* Shlb. (haplotype: *Calligypona albicollis* Shlb., 1877 being a synonym of *Delphax reyi* Fieb., 1866), as it has been already done by Ossiannilsson (1942) who was followed in that by most of the European homopterologists.

XII

On the genus *Leptodelphax* Hpt. with description of a new species from Madagascar (*Delphacidae*)

This characteristic genus was erected by Haupt in 1927 to contain *Leptodelphax cyclops* Hpt. described from Palestine. It is interesting to note here that species of the genus *Leptodelphax* Hpt. occur also in Madagascar. Six specimens in the collection of the Institute of Zoology of the Polish Academy of Sciences belong to two separate species.

One of them is similar to *L. cyclops* HPT. but differs somewhat in the shape of the forehead and the parameres when compared with the figures in HAUPT'S paper. It is also possible that it is the species described in 1859 by STÅL from the Isle of Mauritius under the name *Delpahax maculigera* STÅL. The last species is characterized also by having a black spot situated partly on the frons and partly on the clypeus. I decided to consider the specimens at hand as belonging to STÅL'S species.

The second species in the collection differs considerably from *L. maculigera* (STÅL) and *L. cyclops* HPT. and seems to be new. Descriptions of both species are given below.

Leptodelphax maculigera (STÅL), comb. n.

[fig. 15—19]

Delphax maculigera STÅL, 1859, p. 276.
Liburnia maculigera ST°L, 1866, p. 180.
Liburnia maculigera METCALF, 1943, p. 364.

This species was described by STÅL in 1859 and another description by the same author appeared in 1866; both descriptions, based probably on the same specimen or specimens, differ in some respect from each other[1]. It concerns the sex of the described specimens, the number of pronotal carinae and the development of the frontal carina.

Total length with the wings folded, 3.7—3.8 mm. Length of the forewing 3.0 mm. Whole body stramineous except the tips of the tarsi, the claws, the tips of the spines forming a crown at the end of the hind tibia, the end of rostrum and a roundish common spot at the end of the clypeus and the beginning of the frons, which are black. Eyes brown, ocelli pale orange. Fore and hind wings vitreous, somewhat iridescent. Median frontal carina forking at the apex of the frons. Lateral pronotal carinae diverging, not reaching the hind margin.

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[1] The same is to observe in some other species described by STÅL when the two works are compared.

Opening of pygofer oval. Parameres long, curved basally upwards, apex broad, truncate at the end, elongated inwards; a sharp process at the inner margin. Aedeagus sword-like, with a serrated lobe on its left side and a long, slender spine at the base on the right side.

Material examined: 2 ♂♂, Madagascar, Ambodimanga, January, 1906, leg. HAMMERSTEIN.

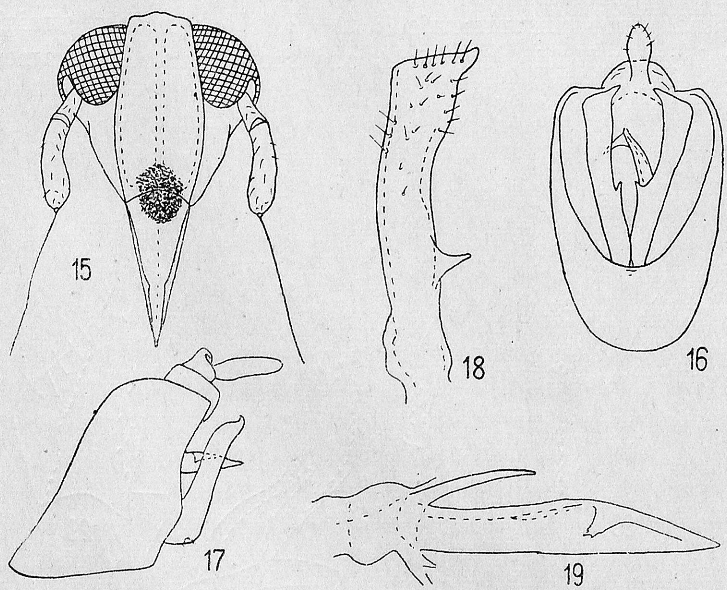


Fig. 15—19. *Leptodelphax maculigera* (STÅL), ♂.
15 — head in frontal view; 16 — pygofer from behind, × 60; 17 — pygofer from the left side, × 60; 18 — left paramere, × 120; 19 — aedeagus from the left side, × 120.

Leptodelphax stachi sp. n.

[fig. 20—24]

Total length of macropterous males 3.7—3.9 mm, that of macropterous females 4.7 mm. Length of the forewing in the male 3.1 mm, in the female 3.9 mm. Whole body stramineous except the tips of the tarsi, claws, tips of the spines

at the end of the hind tibia, those of the tarsal joints, the very end of the rostrum and a somewhat elongated spot on the clypeus at its hind margin, which are black. Eyes brown, ocelli situated on a black ground. Fore and hind wings vitreous, somewhat iridescent. Median frontal carina forking at the apex of the frons. Lateral pronotal carinae diverging, not reaching the hind margin. Male pygofer voluminous, much elongated; opening of pygofer broad, nearly round; spines on the anal tube unsymmetrical: the left one nearly straight, very long and thin, the right one short, curved. Parameres

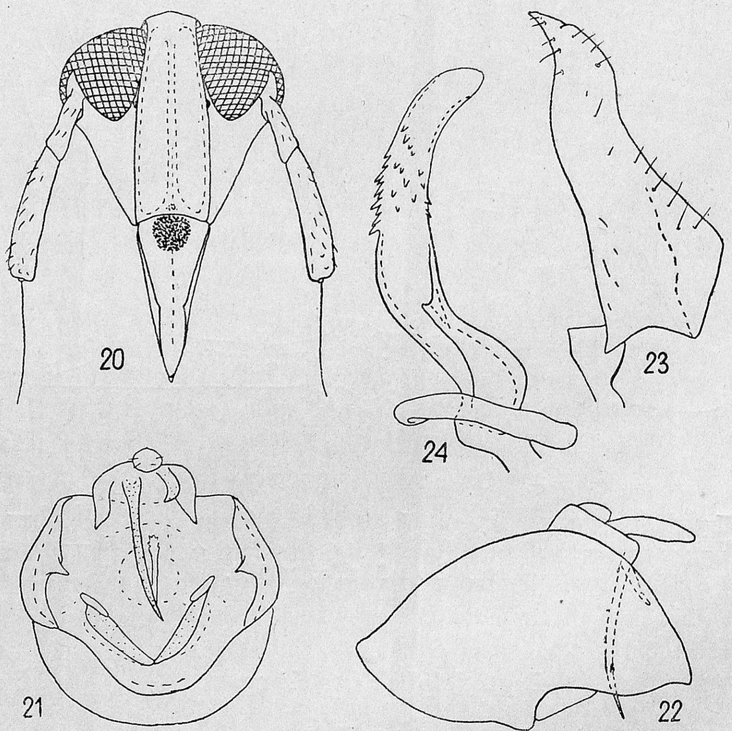


Fig. 20—24. *Leptodelphax stachi* sp. n., ♂.
20 — head in frontal view; 21 — pygofer from behind, × 60; 22 — pygofer from the left side, × 60; 23 — left paramere, × 150; 24 — aedeagus from the left side, × 120.

as figured. Aedeagus S-shaped, provided with numerous spines before its end.

Holotype male, allotype female, one male and one female paratype: Madagascar, Ambodimanga, January — February, 1906, leg. HAMMERSTEIN; in the collection of the Institute of Zoology of the Polish Academy of Sciences, Warszawa.

The new species resembles very much externally *L. maculigera* (STÅL) and *L. cyclops* HPT. It differs from these species in having the frons narrower and the black spot on the frontal side of the head being restricted only to the clypeus. Male pygofer and internal genitalia completely different.

Leptodelphax stachi sp. n. is dedicated to Prof. Dr. Jan STACH, the well known specialist in the *Apterygota*, to honour his 80th birthday.

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STRESZCZENIE

W pierwszej części niniejszych Notatek autor podaje redeskrypcję *Chloriona stenoptera* (Flor) na podstawie okazów pochodzących z Białowieskiego Parku Narodowego.

W następnej części omówione zostało stanowisko systematyczne rodzaju *Delphacodes* Fieb. Autor dochodzi do wniosku, że *Delphacodes* Fieb. jest oddzielnym rodzajem a nie synonimem *Megamelus* Fieb. oraz że nazwy tej nie należy używać ani dla rodzaju *Delphax* auct., nec F. ani dla *Liburnia* auct., nec Stål.

W końcowej części autor omawia znane dotychczas gatunki z rodzaju *Leptodelphax* Hpt. oraz podaje redeskrypcję *L. maculigera* (Stål) i opisuje nowy gatunek, *Leptodelphax stachi* sp. n. z Madagaskaru.

РЕЗЮМЕ

В первой части заметок автор дает редескриппию *Chloriona stenoptera* (Flor) на основании экземпляров происходящих из Бяловежского Национального Парка.

В следующей части рассмотрено систематическое рода *Delphacodes* (Fieb). Автор приходит к мнению, что *Delphacodes* (Fieb). является отдельным родом, а не синонимом *Megamelus* (Fieb). и что этого названия нельзя употреблять ни для рода *Delphax* auct., nec F. ни для *Liburnia* auct., nec Stål.

Наконец автор рассматривает известные до сих пор виды рода *Leptodelphax* Hpt., дает редескрипцию *L. maculigera* (Stål) и описывает новой вид, *Leptodelphax stachi* sp. n. из Мадагаскара.

Redaktor zeszytu: mgr W. Szymczakowski

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